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Middle Eastern Oil Exporters:	
Living With Less Revenue	25X

An Intelligence Assessment

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NESA 87-10033
July 1987

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Middle Eastern Oil Expor	ters:	
Living With Less Revenue		

An Intelligence Assessment

This paper was prepared by Office	25X1
of Near Eastern and South Asian Analysis	25X1
It was coordinated with the Directorate of Operations.	25X1
Comments and queries are welcome and may be addressed to the Chief, Issues and Applications Division, NESA	25 X 1

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		Middle Eastern Oil Exporters: Living With Less Revenue	25X1
•	Key Judgments Information available as of 1 June 1987 was used in this report.	The oil-exporting states of the Middle East will find it increasingly difficult to cope with the pressures resulting from low oil revenues over the next two years. We project a 7-percent decline in their combined GDP this year and another 1 percent next year, even if oil prices stay at about \$18 per barrel. The most serious challenge will come as governments try to distribute cutbacks equitably while accommodating the demands of key interest groups, especially the military. The recession and its effects will encourage leaders of the Middle Eastern oil-exporting states to put distance between themselves and the United States. Indeed, some leaders will attempt to shore up their political positions by blaming their problems on the United States. The economically hardest pressed states will increase demands for US economic and financial aid. Although Moscow will try to exploit tensions between the United States and the Middle Eastern oil exporters, its gains over the next two years are likely to be limited because most of these states are wary of	25X1
		Soviet intentions. The size of the population, accumulated savings, and the strength of the political system and security services will determine the impact of the recession on the individual countries. The countries facing the biggest challenge are Algeria, Egypt, and Tunisia, all of which have large populations, high current expenditures, and limited financial reserves. The Gulf states, and Saudi Arabia in particular, have small populations relative to their savings and thus are better equipped to maintain spending, but they still must work to defuse growing tensions between the richer and poorer elements of society.	25X1
•		The oil price decline is only one of many threats to stability in the area, but the strains of trying to live with less revenue will encourage regime-destabilizing activities in many of the countries. The lingering recession provides a breeding ground for Islamic fundamentalism. Many disadvantaged Middle Easterners find the fundamentalist message persuasive and are inclined to blame Western influence for social injustice and disparities between rich and poor. The threat is most acute in Egypt, where fundamentalist groups are relatively well organized and social and economic conditions are bleak. Islamic fundamentalism is also gaining adherents in the Persian Gulf states, but the leaders of these states have either successfully co-opted or repressed religious groups.	

iii

Secret NESA 87-10033 July 1987

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	Regimes will rely primarily on nonviolent repressive measures to prevent dissatisfaction with the recession from developing into open unrest. If	g
	unrest does break out—as is likely in some states—the governments will quickly use their large security and military services to contain it. Most	,
	governments—especially Egypt in the wake of last year's police riots—will	
	try to shield the military and security forces from serious financial cutbacks to insure their loyalty. Area rulers will draw on their financial re-	
	serves as long as necessary to continue this policy, and the poorer states will	
	cut the security forces proportionately less than other sectors.	25
	In all states in the region, government officials and disgruntled citizens will	
	scrutinize bloated bureaucracies and wasteful spending practices more	
	closely than before. Governments will send home some expatriate workers and encourage their own populations to develop skills appropriate to	
	domestic needs. But economic reforms such as diversification and stimula-	
	tion of private enterprise will founder in most countries because business-	
	men and governments do not have sufficient capital or are unwilling to risk promoting new projects.	25
		23.
	The preoccupation of most oil-exporting states with their economic and	
	other domestic problems will tend to make their foreign policies less assertive. Foreign aid disbursements by the richer Gulf states will be	
	reduced, even to other Arab states such as Syria, Jordan, and perhaps Iraq.	
	Competition for declining funds will strain relations between donors and	
	recipients. Assistance to states outside the Arab or Islamic worlds will be cut even more.	0.53
	cut oven more.	25 X
	In the unlikely case that oil prices drop to about \$10 per barrel and remain	
	there for a prolonged period, the problems of the Middle Eastern oil	
	exporters would intensify significantly. At \$10 per barrel, GDP would fall	
	by 25 percent this year and by another 15 percent in 1988. The Gulf states	•

could cope better than the North African states with such a drop because they have smaller populations and greater financial and oil resources. Still,

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a	ll of the countries would be required to make wr	enching cuts, in some	
·	ases reaching regime-threatening proportions.		25 X 1
n	The economic difficulties that these countries face moderately under a more optimistic, but also unlil	kely, scenario in which oil	
-	rices stabilize at about \$25 per barrel during the GDP would increase by 5 percent this year and b		
tı	reme spending cuts would be avoided, but concer	rn about another price	
	ecline probably would discourage new initiatives	in economic develop-	25X1
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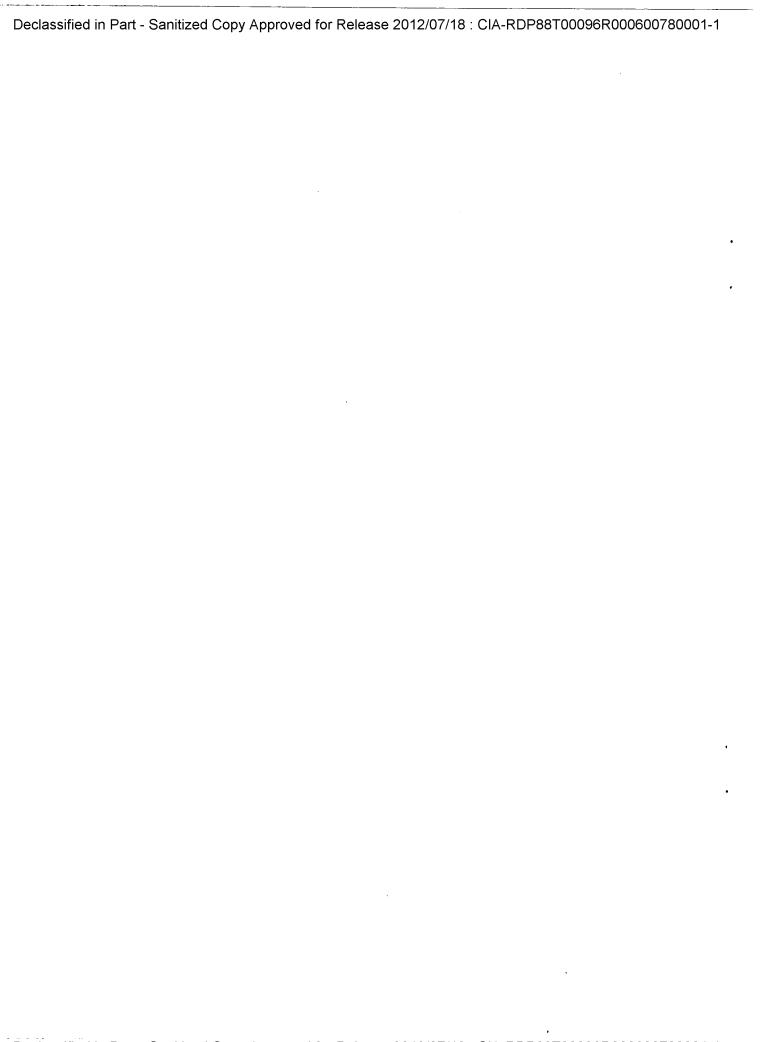
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Scope Note

This assessment examines the methods the Middle Eastern net oil exporters—Algeria, Bahrain, Egypt, Iran, Iraq, Kuwait, Libya, Oman, Qatar, Saudi Arabia, Tunisia, and the United Arab Emirates—are using to cope with reduced revenues and the threat of social and political instability. It also looks at related economic, political, and social developments over the next two years and how these states will deal with them. The assessment assumes that oil prices and production will remain near OPEC's targets established in December 1986 but explores alternative scenarios.

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Contents

	Page
Key Judgments	iii
Scope Note	vii
Economic Outlook	1
Efforts To Boost Revenues	1
Cuts in Spending	1
Economic Reform	6
The Foreign Payments Problem	6
Sending Expatriates Home	8
Borrowing Supplements Savings	9
Social and Political Impact of Austerity Measures	11
Employment Tensions	11
Pressure From Islamic Fundamentalists	12
Maintaining Stability	12
Protecting the Military and Security Services	13
Emphasizing Pragmatic Foreign Relations	15
Impact on Checkbook Diplomacy	15
Coping With Reality	16
High Absorbers	17
Low Absorbers	18
Alternative Scenarios	18
What if Oil Prices Fall?	18
What if Oil Prices Increase?	19
Implications for the United States	19
Little Gain Seen for the Soviets	21

Appendixes

Α.	Econometric Methodology	23

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Figure 1
Middle Eastern Oil-Exporting Countries



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Middle Eastern Oil Exporters: Living With Less Revenue		25X1		
The Middle Eastern oil-exporting countries reaped an unprecedented revenue bonanza from the dramatic oil price hikes of 1973 and 1979 and quickly began developing their economies. They undertook major	countries with substantial financial reserves will con- tinue to fear renewed instability in the oil market and will be reluctant to initiate costly development pro- grams, perhaps even postponing projects already un-			
industrial projects; expanded roads, ports, and com- munications; implemented social welfare programs to provide education, health care, and basic necessities for their citizens at subsidized prices; and embarked on ambitious military modernization programs. All of these efforts were overwhelmingly dependent on oil	der way. Efforts To Boost Revenues We believe that many of the governments will attempt to increase revenues by raising tax rates and compliance, but these policies are unlikely to affect the	25X1		
The golden days of the oil boom have faded—at least temporarily—and these states are being forced to adjust to significantly lower oil revenues and a potentially troubling recession. After peaking at \$34 a barrel in 1981, oil prices declined to an average of about \$15 per barrel in 1986. With inflation and the fall of the dollar, in which oil prices are denominated, the purchasing power of a barrel of oil sold by these states is only about 40 percent of what it was in 1981.	revenue picture substantially. Many of their 1987 budgets include fees for social services and utilities, taxes on luxury items, excise taxes on tobacco and alcohol products, tolls, and increased tariffs. According to US Embassy sources, Tunis is considering a tax hike for higher income brackets and tighter administrative policies to make tax avoidance more difficult. Even countries that do not have income taxes, such as Saudi Arabia, are considering levying them, according to US Embassy reporting. We believe, however, that fears of domestic unrest will deter these states	25X1		
Economic Outlook	from implementing effective measures to increase substantially domestic tax revenues. We expect, consequently, that oil will continue to provide an average of roughly two-thirds—as low as 20 percent for Tunisia and as high as 90 percent for the UAE—of	25X1		
Economic prospects for the Middle Eastern oil exporters hinge largely on the OPEC agreement reached in December 1986 that set production quotas and fixed	aggregate government revenues. Cuts in Spending	25 X 1		

Economic Out

Economic pro ers hinge larg December 1986 prices at an average of \$18 per barrel. Even if prices are maintained at OPEC-mandated levels, the producing countries in aggregate are unlikely to experience any economic growth over the next two years. According to our econometric model, overall GDP will decline by about 7 percent this year, decline by another I percent next year, and will slightly recover in 1989. We believe these countries will do little more regarding economic development than try to limit the impact of the continuing recession. Even those

¹ The Middle Eastern oil-exporting countries include Algeria, Bahrain, Egypt, Iran, Iraq, Kuwait, Libya, Oman, Qatar, Saudi Arabia, Tunisia, and the United Arab Emirates (UAE).

Despite slashes in government spending by about 20 percent during the last three years, the governments are likely to make additional spending cuts even if oil prices remain at \$18 per barrel. Our model projects that government spending this year will fall 5 percent from the 1986 level and at best remain constant next year. Many of these states probably will try to trim the sizable budget and current account deficits they have experienced over the last few years. Although the biggest cuts have already been made, they have also been the easiest. Future cuts, even small ones, are likely to be more painful.

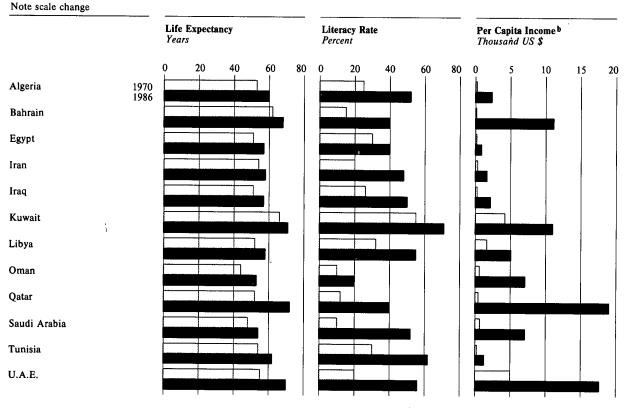
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Figure 2
Middle Eastern Oil Exporters: Improvements in Health,
Education, and Welfare, 1970 and 1986



a Estimates based on available data.

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Spending on defense and security personnel and programs that promote a specific government objective or protect critical interest groups will probably follow past trends and be spared or cut proportionately less than the overall budget. In Saudi Arabia, for example, the 1987 budget increases spending for manpower and education programs to support Riyadh's Saudization efforts and includes new funding for Islamic universities and more services in Mecca and Medina to appeal to religious groups.

Most states will probably avoid significant cuts or move cautiously in changing existing subsidies or services. In Tunisia, for example, concern that the bloody 1984 food riots would be repeated delayed the Bourguiba government's cut in subsidies until mid-1986 when rapidly deteriorating economic conditions forced the implementation of reforms. Similar qualms have prompted Egyptian President Mubarak to pursue a highly cautious and gradualist approach to

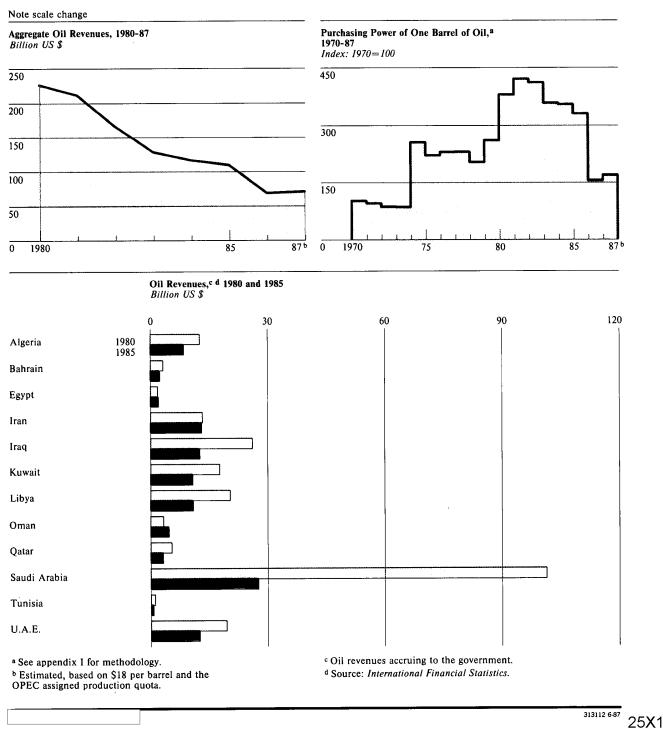
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^b Figures for Persian Gulf countries include large expatriate populations which skews actual figure for native per capita income downward.

Figure 3 Middle Eastern Oil Exporters: Declining Oil Revenues



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Algeria

Bahrain Egypt

Iran Iraq

Kuwait Libya

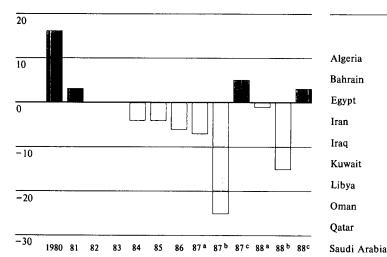
Oman Qatar

Tunisia

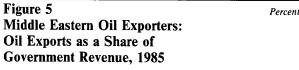
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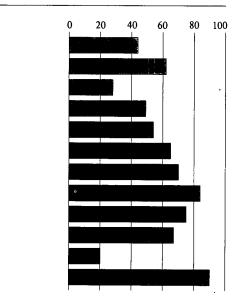
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Figure 4 Percent **Middle Eastern Oil Exporters:** Aggregate Real GDP Growth, 1980-88



- ^a Assumes oil at \$18 per barrel.
- b Assumes oil at \$10 barrel.
- c Assumes oil at \$25 per barrel.





raising prices. The price of bread was raised by first doubling both its size and price and then slowly trimming the size of the loaf. We believe he will retract any increases at the first sign of trouble. An attempt by President Sadat to raise food prices in 1977 resulted in widespread rioting and an immediate retraction of the cost increases.

Operating, maintenance, and administrative expenditures are likely to suffer the biggest cuts. We expect most states will try to make reductions evenly from nearly all civilian categories in their 1987 budgets and to follow a similar pattern in 1988. With most major development projects already scaled back or dropped, the governments are now attempting to spread the cuts broadly to avoid creating additional economic disparities. The governments will try to spare wages, but we believe the middle class—especially technocrats, civil servants, and small businessmen-will be

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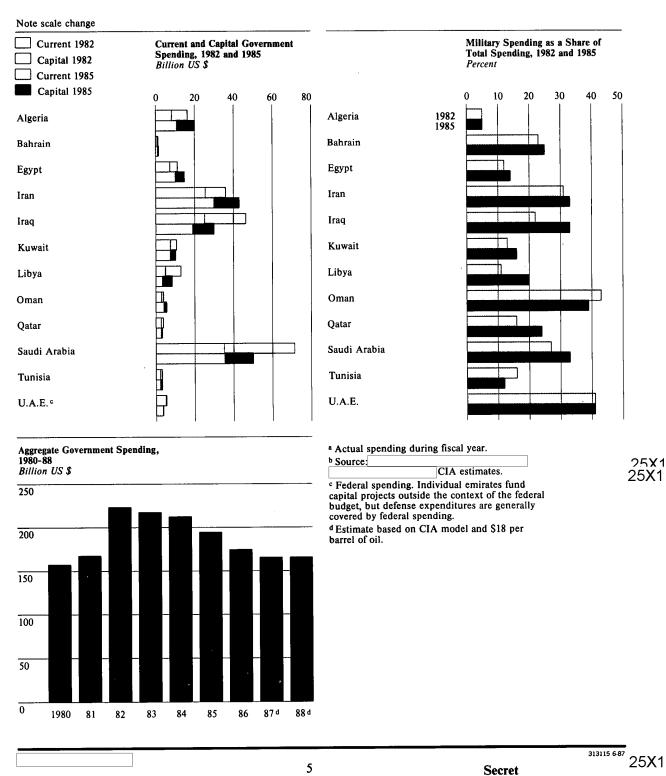
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hurt disproportionately. Those governments that elect or are forced to cut benefits will try to mask the impact of the measures. In Libya, for example, the government trimmed the salaries of government workers by reducing the number of pay periods in a year, delaying checks, and forcing employees to deposit funds in government accounts with limited withdrawals.

The business community is likely to continue to bear most directly the negative impact of the economic recession because governments have canceled development projects, cut contractors' profit margins, demanded that companies finance projects without government assistance, and delayed payments. US





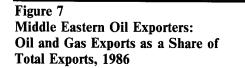
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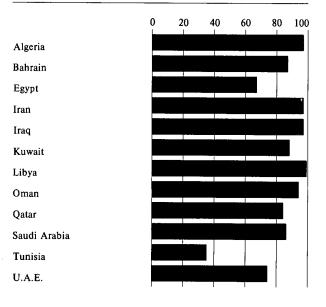
Embassies in the Gulf states report that a sharp increase in bankruptcies of private firms, including some of the largest in the UAE, has led to considerable grumbling among businessmen. Although we believe that resentment of government economic policies by this group will increase significantly, the business communities' close identification with, and sometimes membership in, the countries' ruling establishments will limit exploitation by opponents of the regimes.

Economic Reform

As the economic recession has settled into the region, the Middle Eastern oil exporters have been forced to reevaluate their economic policies. Many of the countries have started to streamline their institutions and look more pragmatically at their economic programs—actions that please traditionalists who are concerned with the rapid pace and direction of development. In Saudi Arabia the government is considering eliminating several agencies charged with specific oil market functions, according to Embassy reporting. Although corruption and wasteful spending persist, the actions of officials are being more carefully scrutinized by the public. Last fall Oman fired the influential Minister of Housing because of growing public criticism of his corruption and mismanagement, according to US Embassy sources.

Many of the Middle Eastern oil exporters are looking to privatization and diversification to make their economies more efficient and less vulnerable to oil market fluctuations. But liquidity problems facing private companies even in relatively wealthy states such as Saudi Arabia, Kuwait, and the UAE will probably make it difficult for the private sector to become a major force in stimulating growth. Press reports indicate that economic sectors considered for diversification include agriculture, minerals, fishing, light industry, and finance. The governments have taken little action on these proposals because of reduced revenues. Many of the states, however, are beginning to consider changing or implementing legal and commercial codes to attract and maintain commercial ties to the West to promote diversification. according to Embassy reporting.





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Percent

The Foreign Payments Problem

We expect the Middle Eastern oil exporters to continue to face substantial, but diminishing, current account deficits. Oil revenues probably will increase once again if, as we expect, OPEC members limit production and world demand grows. Our model shows an increase of nearly 18 percent in aggregate export revenues for this year over the 1986 level of about \$86 billion, with another 4 percent increase in

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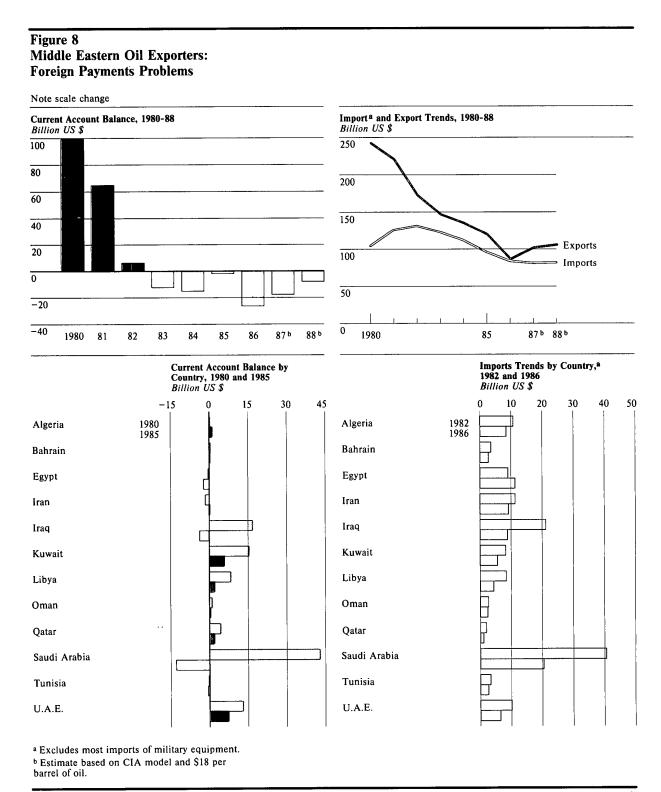
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1988. Increased revenue combined with spending cuts should reduce this year's aggregate current account deficit by about \$9 billion from the 1986 level of \$26 billion, assuming an average price of \$18 per barrel.

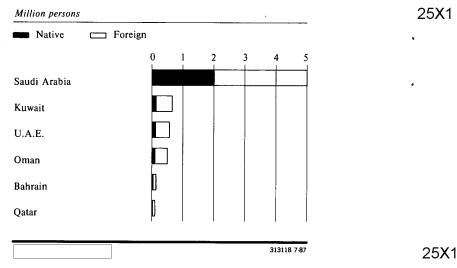
All of the oil states will almost certainly try to reduce the outflow of foreign exchange. They already have made deep cuts in imports, including capital goods, consumer goods, and luxury items, and some have adopted rationing to control the distribution of basic commodities. To further discourage imports, several countries, including Tunisia, Libya, and Oman, devalued their currencies by more than 10 percent last year. Other states probably will reluctantly consider similar action this year. With an increase in oil revenues this year, some states might increase imports slightly, but we would expect most to loosen import restrictions only cautiously. Moreover, we expect the impact of past import restrictions to have a lagged effect and impair economic growth during the next few years, even if oil prices remain near \$18 per barrel.

Additional measures to cut imports to offset persisting current account deficits could easily cause or worsen shortages, inflationary pressures, and an increase in illegal commercial activity. Increased tariffs and other restrictive measures on imports have already raised the prices of consumer and durable goods such as chocolate, coffee, appliances, electronic equipment, and apparel in the last few years.

Several countries, including Libya, Iran, and Iraq, are witnessing substantial growth of black markets and smuggling Active black markets in these countries make some commodities virtually unavailable on the legitimate market,

In Libyan cities, for example, many foods cost four to five times the price they did a year ago. Food and most other basic commodities are rationed. With the exception of Iraq, most countries tolerate this illegal activity because it relieves pressure on the government to supply goods, the governments can do little to control it, and many officials benefit from it through bribes and kickbacks.

Figure 9 Arabian Peninsula: Composition of Labor Force, 1986



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Sending Expatriates Home

The lack of new development projects and an interest in saving foreign exchange will almost certainly prompt the Gulf states to pare the most expensive segments of their large expatriate labor forces. On the basis of Embassy and press reporting, we estimate that foreign workers make up about 80 percent of the labor force in several of the smaller Gulf states. Although only a small percentage of the region's total foreign work force is likely to return home any time soon, many of those who leave either will not be replaced or will be replaced by cheaper labor from South or East Asia. Their departure will offer few new employment opportunities for indigenous workers. Although the labor-importing states would like to indigenize their work forces, the departure of large numbers of expatriates would hurt their economies because most nationals do not have the training, experience, or management skills equal to that of the expatriates they replace.

Even a limited repatriation of additional workers would have a negative effect on the economies and societies of the labor-supplying states. Cairo has depended heavily on remittances from Egyptians working in other oil-exporting countries. Remittances from all workers abroad are Egypt's largest source of foreign exchange. According to Embassy reporting, Egypt may have lost as much as \$2 billion during the past year as a result of lost jobs and of curbs on the repatriation of earnings in countries such as Iraq. According to our analysis, Egyptians working abroad comprised approximately 20 percent of the country's working-age population. In one Egyptian village, as many as 80 percent of the men had been working in the Gulf states, and most are returning home, according to press reports. Embassy reporting

indicate the expulsion from Libya last year of about 32,000 Tunisian workers and their families cost Tunisia about \$140 million in remittances, trade, and additional outlays for social services.

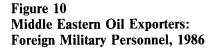
Despite some cuts in civilian expatriate labor, we believe the Gulf states will continue to rely on foreign military personnel to compensate for endemic shortages of skilled technicians and tactical advisers in military-related jobs. We believe, however, that the efficiency of the armed forces in these countries will decline as some expatriates leave and others are replaced with less expensive and less qualified personnel from poorer countries. Our analysis shows that about 60,000 foreign military personnel currently serve in the oil-exporting states, mostly in the Gulf.

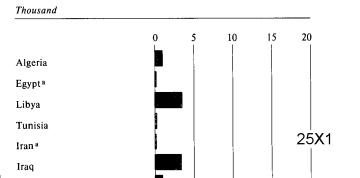
expatriates play critical roles in managing Saudi Arabia's military logistic system and in maintaining US, French, and British military equipment.

most of the smaller Gulf states could not operate and maintain their air forces and navies without foreign personnel. Expatriates also support local security services in the Gulf states.

Borrowing Supplements Savings

The broad range of monetary and fiscal policies undertaken by the oil-exporting countries has been insufficient to cover their growing deficits, and most of the countries will almost certainly continue to draw on foreign assets or to borrow on the international





Kuwait Oman Qatar Saudi Arabia

a Probably less than 200.

Bahrain

U.A.E.b

capital markets. Since the early 1980s Iraq has drawn down its reserves by nearly \$20 billion and Saudi 25X1

Arabia by about \$40 billion to \$2 billion and \$105 billion, respectively.

The drawdowns have permitted some of the oilexporting countries, particularly those in the Arabian Peninsula, to continue funding their generous social welfare programs and to avoid deep cuts that would negatively affect their citizens. Although drawing on them to cover current financial shortfalls has provoked concern among some government officials because of the commitment of several of these governments to save a portion of their oil revenues for future 25X1

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^b Does not include 13,600 Omani troops.

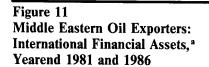
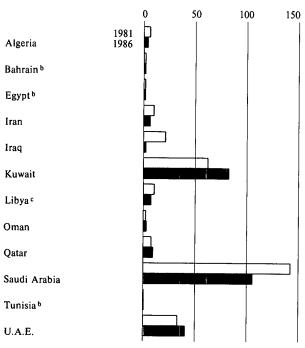
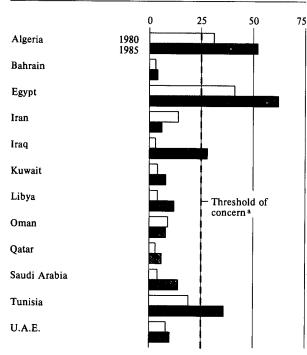


Figure 12
Middle Eastern Oil Exporters:
Debt Service Ratios, 1980 and 1985



Billion US \$





- a CIA estimate.
- ^b Foreign exchange and gold holdings.
- c Includes holdings in Arab Banking Corporation.

^a Debt service ratio is the percentage of export earnings used to make principal and interest payments on the foreign debt. International financial institutions consider a ratio of 25 percent or more to be high.

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generations, those states with generous reserves probably will draw them down further to avoid politically difficult decisions. Many of these states will probably try to balance drawdowns with domestic and international borrowing, but in some cases—Saudi Arabia in particular—this alternative is limited because influential religious groups believe that the government should abide by the Islamic prohibition against paying interest.

The North African countries, except for Libya, have borrowed heavily to cover their deficits and almost certainly will continue to do so. Borrowing by Egypt and Algeria has increased their already high debt-service ratios to over 50 percent each—more than twice the rate that international financial institutions consider dangerous. The IMF and other international

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organizations helped Tunisia obtain additional aid and have rescheduled Egypt's debt. Iraq also has increased its borrowing substantially since 1983 and is continually trying to reschedule its debts. Baghdad faces less immediate pressure than the North African oil exporters, however, because nearly two-thirds of its debt-\$30 billion-is owed to Saudi Arabia and Kuwait, which have supported the Iraqi war effort and almost certainly will not demand prompt repayment.

Social and Political Impact of Austerity Measures

The oil price decline is only one of many threats to stability in the Middle Eastern oil-exporting countries, and thus it is difficult to analyze precisely its political and social impact. Reduced revenues complicate the ability of these governments to cope with a host of problems, including ethnic tensions, political corruption, demands for greater political participation, border disputes, and interstate disputes. Some of the economic policies implemented to adjust to reduced oil revenues will increase the risk of unrest, particularly as social spending dries up, standards of living decline, unemployment grows, and popular expectations of a better life go unmet. Indeed, we believe the greatest danger of this particular economic crisis is its tendency to aggravate a broad range of social and political problems simultaneously in states that no longer have large surplus funds to ease these tensions.

Employment Tensions

The rapidly growing populations of these states and the lack of matched skills to the needs of their economies make employment prospects relatively poor for the unemployed and for new entrants to the labor force. The diminished demand for labor in both the public and private sectors caused by the oil price decline, moreover, is closing an important safety valve for social tensions.

an increasing number of disgruntled unemployed workers are contributing to growing delinquency, crime, and drug abuse.

Employment prospects for growing numbers of Arab youth are dimmer than for the previous generation.

The Growing Demographic Burden

Demographic factors will severely complicate the region's ability to cope with lower income—particularly in the North African states, where populations are larger than those of the Gulf states and per capita oil income is substantially less:

- Annual rates of population growth are high throughout the region. Kuwait's population, for example, is growing at 3.5 percent. Egypt's population of 51 million—the largest in the Middle East—is growing at 2.7 percent annually, a rate that adds another million mouths to feed approximately every seven months.
- Well over half the people in the region are under 25, and, although population growth rates may decline slightly before the end of this century, we do not expect a significant slowdown in growth for at least several decades.
- The growing concentration of people in urban areas—more than 60 percent of the population in 1985 compared to 45 percent in 1970—increases the potential for large groups to assemble in protest against reduced subsidies for food or other services.
- Feeding the growing population will become more burdensome. Egypt, Libya, and Algeria, for example, must import at least 60 percent of their total food requirements.a Dwindling oil income will make it increasingly difficult to maintain adequate supplies of low-cost food.

• Housing shortages are acute, particularly in the large cities of North Africa. The US Embassy in Algiers lists the lack of adequate housing as Algeria's most pressing social problem.

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Reductions in public-sector expenditures will contribute to the increased inability of these countries to provide jobs for the large number of people who will be entering the job market. Unemployment and underemployment are already a problem—topping 30 percent in Tunisia and Algeria and reaching nearly 60 percent in some urban areas. Reduced revenues led the UAE to declare last year that it would hire no new employees and prompted the Egyptian Government to implement new hiring restrictions for college graduates.

Youth in the wealthier Gulf states could improve their employment prospects, but only by accepting less prestigious positions or pursuing more practical courses of study. These governments are encouraging local students to select technical and scientific training to compete for jobs now largely filled by expatriates. Despite this encouragement, we doubt that many of these students will shift their educational focus, believing that the boom days will return after a temporary lull in the economy and that they will find high-paying jobs regardless of their area of study. Popular dissatisfaction with a proposal to establish a trade school in Kuwait contributed to the ouster of the Minister of Education last year, according to US Embassy sources.

Pressure From Islamic Fundamentalists

We believe that deteriorating economic and social conditions will provide an increasingly fertile breeding ground for discontent that could be exploited by religious groups. Islamic fundamentalism will continue to be especially attractive because it focuses on the conditions that disadvantaged Middle Easterners hold responsible for their economic plight—social injustice brought about by misguided policies; profligate spending and extravagant lifestyles by ruling families; growing disparities between rich and poor resulting from corruption; and increasing Western influences that are undermining traditional Islamic values. Popular discontent with these perceived injustices will almost certainly grow during a prolonged recession.²

We believe the fundamentalist threat will be most acute in Egypt and Tunisia, where Islamic groups have shown themselves to be relatively disciplined, organized, and, in some cases, well financed. Radical, violence-prone sects are difficult to uproot. Although Egyptian security authorities claim to have them under control, we believe that extremists of the sort who murdered President Sadat in 1981 have not been completely neutralized by government security forces. The confrontation between the government and Islamic fundamentalists in Tunisia has become more violent this year in response to the government's campaign to eliminate all independent political activity.

We believe that the threat from Islamic fundamentalists is not so serious in most Gulf states because their societies are conservative and their more prosperous governments appear to have blended appeasement with repression of religious groups. States with large or regionally concentrated Shia populations—Iraq, Bahrain, Kuwait, the UAE, and Saudi Arabia—are particularly concerned about potential unrest and have begun to burnish their Islamic credentials through stricter enforcement of Islamic laws.

The threat of antiregime violence by fundamentalists takes a different form in Iran—the only country governed by fundamentalists. Discontent is growing because of chronic shortages of consumer goods and high unemployment and inflation. In addition, clerical rivalries kept under control by Khomeini could pose a serious threat to the stability of the regime after his death.

Maintaining Stability

We believe the oil states will be able to maintain public order despite the hardships austerity is likely to produce. We see little prospect of violent regime changes stemming from economic problems during

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the next two years. Nonetheless, some domestic unrest is likely, especially in the poorer North African states, as various interest groups compete to enhance their positions and their share of the national income while governments are vulnerable.

Regimes will rely primarily on nonviolent repressive measures to prevent dissatisfaction from developing into open unrest. We anticipate continued tight control over the news media, close monitoring of the population by security services, and restrictions on most political groups, particularly those the regimes believe constitute a threat to their rule. Surveillance, censorship, and heavyhanded security measures are all likely to increase as the recession deepens:

- Last year Kuwait abolished its parliament because it was too critical of government policies. It has also begun censoring its freewheeling press and is contemplating nationalizing three newspapers, according to US officials.
- In Tunisia a growing crackdown on Islamic fundamentalist groups is being extended to other opposition elements, according to the US Embassy in Tunis. The campaign is contributing to a sense of political alienation outside ruling party circles that could provoke further unrest as power slips from the hands of the aging Bourguiba.
- Oman already has ordered all natives and foreign residents to carry identification cards to aid the internal security service, according to press reports.

If unrest does break out—as is likely in some of the Middle Eastern oil-exporting states—we believe the governments will quickly use their large security and military services to contain it. Although these services vary considerably in their ability both to detect embryonic dissident groups and to contain outbreaks of unrest, we believe they are capable of maintaining order, at least in the short term. None except Egypt, however, has had recent experience in putting down large-scale riots, and we believe the loyalty of these services would be severely tested if they became engaged in sustained street campaigns, such as those that occurred in Iran in 1979.

Protecting the Military and Security Services

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The need to protect social services and welfare programs almost certainly will require cuts in military budgets for most countries in the region. The Middle Eastern oil-exporting states will focus cuts on the least sensitive items—spare parts, new equipment, facilities, training, and maintenance—to protect the salaries and benefits of military personnel. Iran and Iraq, however, will continue to give military budgets a high priority, at least until their war ends. We believe Libya is also an exception.

press accounts indicate Qadhafi has attempted to continue buying advanced equipment while reducing personnel costs. He has frozen most promotions and ended generous commissary, housing, and travel privileges.

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Except for Libya, we expect such policies to help ensure the military's loyalty to the regime, but they are almost certain to undermine the military's operational readiness and capabilities, particularly as training and maintenance are further reduced. Regional self-defense and military cooperation are likely to suffer as funds for joint military exercises are diverted elsewhere. The annual military exercises planned by the Gulf Cooperation Council have been postponed or scaled down since October 1984, in part because many of the participants are looking for ways to save These countries money will probably try to meet military threats through cooperation agreements with more experienced military establishments such as those of Morocco and 25X1 Pakistan, or they will rely on the US security umbrella.

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In the Gulf states, policies to protect military personnel from major cuts have muted much of the dissatisfaction that might have developed from lower spending for defense. In some cases, restrictions on the hiring of expatriates have opened more opportunities for native military personnel. In addition, cutbacks in purchases of equipment are not likely to be a severe problem, because most of these countries cannot operate all of the equipment already in their inventories or about to be delivered.

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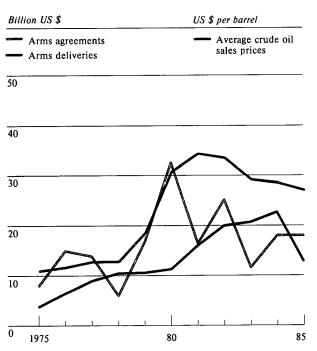
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Declining Arms Purchases		
Cuts in military spending are most obvious in the reduction in foreign arms purchases. the value of Middle Eastern oil-exporting countries' arms purchase agreements peaked in 1980 at more than \$32 billion, just before the price of oil reached its highest levels. Actual deliveries of weapons peaked four years later at about \$23 billion, reflecting the timelags inherent in arms deliveries. Both agreements and deliveries subsequently have declined. Although orders rebounded in 1984 and 1985, this was largely on the	stated production policies. Embassy reporting indicates that the oil used in barter arrangements is generally produced in excess of OPEC quotas, thus adding to world supplies and putting downward pressure on prices. In Saudi Arabia the Ministry of Defense, not the Ministry of Petroleum, has the authority to decide on barter arrangements for arms sales, according to US Embassy reporting. Falling oil prices have complicated these agreements, since the terms usually have to be renegotiated to reflect the price change	25X1 25X1
strength of two large deals involving Saudi Arabia. Deliveries have not reflected the upswing in contracts and are not likely to do so. We believe most customers will stretch out deliveries or cancel some contracts because of decreasing revenues and the need to	Reduced oil income is straining relations with arms suppliers because of the oil exporters' inability to pay for arms deliveries:	25X1 25X1
conserve cash.	John Market Constitution of the Constitution o	25 X 1
Faced with lower revenues, some oil exporters have bartered oil for arms. In late 1984 the United Arab Emirates ordered 18 Mirage 2000 fighters from France and agreed to pay with a combination of cash and oil. Saudi Arabia's 1985 purphase of Tormado Fakter have been formado.	• Iraq's largest Western suppliers, Italy and France, are becoming reluctant to grant more arms credits to Baghdad, which has already fallen behind in its	25X1
1985 purchase of Tornado fighter-bombers from the United Kingdom called for oil as payment for part of the \$7 billion deal. Oil barter, while conserving cash, probably is adding to the woes of oil exporters and often conflicts with	payments. • Oman has postponed until at least 1992 the purchase of eight Tornados from the United Kingdom, effectively canceling the deal.	25X1 25X1
Shielding military personnel from additional austerity may prove to be difficult for the poorer states of North Africa, given the risk of coup plotting by discontented military officers. Egyptian leaders—who depended heavily on the Army to restore order after		
the 1986 police mutiny—probably will require that disproportionate cuts be made in the civilian sector to continue providing military officers with relatively generous benefits and comfortable living standards.	Grumbling in the ranks may be even more ominous in Algeria, where President Bendjedid has been criti-	_. 25X1
Even so, it will be difficult to avoid some lowering of these standards and, thus, of military morale.	cized by Army leaders for cuts in the military pro- curement budget and elimination of some pay incen- tives and medical benefits. As part of an effort to	25 X 1

Figure 13 Middle Eastern Oil Exporters: Arms Agreements and Deliveries, 1975-85

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quash dissent and protect his position, Bendjedid moved last year to reestablish his control over the military by firing his chief of staff and reorganizing his Presidential Guard, according to defense attache reporting.

Emphasizing Pragmatic Foreign Relations

We do not believe that economic problems have greatly changed regional alliances of oil exporters, although they have encouraged more nationalistic policies. We believe that pressing internal problems will reinforce the proclivity to focus on internal issues rather than regional and international issues. Pan-Arabism is no longer seen as a practical solution to

the region's problems because of inter-Arab bickering and the failure to defeat Israel, although Arab leaders still give lipservice to the idea of Arab unity. We believe that interest in the Palestinian issue among other Arabs has waned, even though they still strongly believe that an injustice has been perpetrated on the Palestinians.

Efforts to increase oil prices have led to renewed cooperation among the Middle Eastern oil-exporting states. OPEC-to which all the Middle Eastern exporters except Bahrain, Oman, Egypt, and Tunisia belong—has held frequent conferences to discuss prices, and these gatherings have provided a setting where ranking officials of member countries could meet informally and discuss political issues. We believe that the relative success of the December 1986 OPEC accord has been one of the factors leading to Riyadh's reevaluation of its relations with Tehran and Baghdad. Despite their generally strained relations, Iran's and Saudi Arabia's interests converge on the need to bring oil pricing and production discipline to OPEC. Iraq's refusal to agree to the terms of the OPEC accord has put the Saudis in the awkward position of defending what other members consider to be Iraqi cheating. 25X1

Impact on Checkbook Diplomacy

Lower oil revenues have reduced the scope of economic aid as a foreign policy tool. For more than a decade Saudi Arabia, Kuwait, the UAE, and Qatar have used foreign aid to foster regional consensus, support the Arabs against Israel, promote their influence over both moderate and radical regimes, and secure protection from terrorism and more powerful neighbors. Most of the foreign aid has gone to Arab states opposing Israel—Syria, Jordan, and, until 1979, Egypt. Gulf state donors, which have large Palestinian communities, also pledged to give \$300 million annually to the Palestine Liberation Organization (PLO) as part of the 1978 Baghdad Agreementsigned following the Camp David agreement to help Syria, Jordan, and the PLO finance their struggle against Israel. Last year, however, only Saudi Arabia, Kuwait, and the UAE made payments

to the PLO. Since the Iran-Iraq war be	gan,
the Gulf states have also provided Iraq with	
cash, aid in kind, and loans.	25X1

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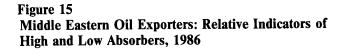
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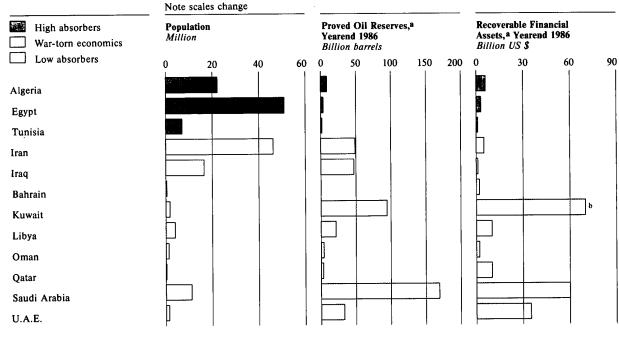
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	We expect the donors to take a harder look at their aid disbursements, particularly as the 10-year Baghdad Agreement approaches expiration in the fall of 1988. Gulf lenders almost certainly will use declining foreign reserves and austerity measures at home to justify reductions in foreign aid to Syria, Jordan, and possibly Iraq, despite their concern over the reaction of these recipients. We believe that both Iraq and Syria will retain considerable leverage in seeking financial aid. Cash aid to Iraq will probably depend on the level of fighting in the Iran-Iraq war, Iraqi oil production, and the Gulf states' assessment of Baghdad's ability to prevent Iran from establishing an Islamic republic in Iraq.	25X1
	Egypt is likely to receive increased aid from the Gulf states in recognition of its mounting economic troubles and its strategic significance. Iranian advances in the war against Iraq convinced the donor states of their need for a strong, moderate, and supportive Egypt. They are likely to continue courting Cairo with a view toward securing Egyptian assurances of military support in the event of a major Iranian threat to the Gulf states. The Gulf states pledged as much as \$2 billion to Cairo in the last year to help relieve Egypt's economic problems	25X1
Foreign assistance to non-Arab recipients—never a priority of the donor states' overall aid package—is,	As they increase aid levels to Egypt, however, the Gulf states risk complicating their relations with other recipients by obliging them to make do with less. Resentment of Egypt by these recipients is likely to increase as Cairo regains a share of Gulf aid money. Iraq almost certainly fears that Egypt will soak up Saudi aid money that Baghdad hopes to use for postwar reconstruction.	25X1
nonetheless, significant to mostly Islamic African and South and East Asian recipients. In return, the Gulf states seek support for Arab positions in international forums and reductions in ties to Israel. This funding has been reduced as the Gulf states marshal their funds for pressing needs closer to home. According to US Embassy reporting, Kuwait, for example, plans to avoid additional financial commitments to African states because of its own economic problems.	Coping With Reality Most of the leaders of the oil-exporting states will probably try to muddle through the period of low economic growth we expect during the next two years	
states seedase of its own economic proofens.		25X1

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^a Excludes nonrecoverable loans.

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and avoid having to grapple with fundamental dilemmas plaguing their countries. As the low oil prices persist, however, resorting to quick fixes will become increasingly difficult. Countries with large populations and high current expenditures—the high absorbers—probably are the most vunerable. Most of the countries with the highest dependence on oil revenues, ironically, are not those seriously threatened. Many of the countries highly dependent on oil revenues are low absorbers—they have small populations relative to their revenue—and can supplement current income with accumulated savings.

High Absorbers

With few financial reserves to fall back on and large populations to care for, high absorbers—especially

Algeria, Egypt, and Tunisia—will face particularly tough choices over future cuts. Restoring financial stability will probably require additional belt-tightening, which many political leaders will find unpalatable. Political inaction is likely to result as government infighting about policy and the allocation of scarce resources increases. These states are likely to require more foreign aid and loans and may resort to debt rescheduling to meet financial requirements even if they come to grips with the need for additional economic reforms.

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b Includes Reserve Fund for Future Generations.

The situation in Tunisia is complicated by a political vacuum at the top, according to US Embassy reporting, where President Bourguiba is increasingly resorting to heavyhanded tactics to shore up his authority. This trend—aggravated by economic austerity—could foster links among the opposition groups, secular and religious, who have not been able to forge a common political front.

Leaders in the high-absorbing countries are likely to proceed slowly and carefully with further economic reforms for fear that harsh austerity measures would provoke unrest long before they produced economic benefits. Algeria and Tunisia have implemented some impressive reforms, but more must be done before they can cover their requirements for foreign exchange. Only Algerian President Bendjedid appears willing to try to mobilize public support for austerity. Through media blitzes and regional meetings and conferences, Algiers has, with considerable success, urged the people to reduce imports and eliminate resource waste. Even so, economically inspired rioting by students took place in Constantine last November. and minor disturbances occurred in several other cities, including the capital.

Low Absorbers

With their far greater wealth and smaller populations, we believe that the Gulf states have enough funds remaining in their budgets to insulate most of their populations from the impact of cutbacks, at least until the end of the decade. They will probably be able to stave off painful economic choices by drawing on their sizable recoverable financial assets. As of the end of 1986 this accounted for \$70 billion in Kuwait, \$60 billion in Saudi Arabia, and \$35 billion in the UAE. Although their leaders almost certainly recognize the longer term danger of such a policy, reporting from Embassy sources indicates they believe their economic problems will be eased by the early 1990s when, according to energy experts, oil demand and prices will increase.

Nonetheless, the Gulf states will have to defuse growing tensions between society's rich and poor to maintain domestic stability while accommodating key religious, military, and business groups. Intolerance of corruption and the extravagant lifestyles of the

wealthy ruling elites is likely to increase during the next few years. Reporting from US Embassies in the region indicates a growing resistance to both, especially among small businessmen and recent university graduates, who have had to reduce their spending and lower their expectations.

Libya does not fit the low-absorber pattern because its population already is suffering from a precipitous drop in living standards. In our view, Libya has sustained far greater damage and incurred a greater risk of instability from Qadhafi's policies than it has from the decline in world oil prices. Qadhafi has been unwilling to draw on foreign reserves to ameliorate consumer dissatisfaction and, instead, is forcing the population to make sacrifices to continue his foreign adventurism, such as the incursion into Chad. Unlike the leaders of most of the other Middle Eastern oilexporting countries, he appears oblivious to public opinion, even within the military. Qadhafi's commitment to his revolutionary goals will probably lead him to demand even greater sacrifices from the Libyan people, adding further strains to the society and economy.

War-torn Iran and Iraq face considerable hardships from low oil prices, but the impact of the conflict remains the overwhelming determinant of stability in these two countries. In Iraq the government has become concerned about popular resentment toward corrupt members of President Saddam Husayn's extended family, according to the US Embassy in Baghdad. In Iran, corruption is widespread, but government leaders live unostentatiously and the disadvantaged classes appear to believe they are getting their fair share of national wealth.

Alternative Scenarios

What if Oil Prices Fall?

The problems facing the Middle Eastern oil-exporting countries would intensify dramatically under the unlikely scenario that oil prices were to fall to \$10 per barrel and remain at that level during the next few years. Under this assumption, our model indicates

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Impact of the Iran-Iraq War

Decreased oil revenues are playing an increasingly important role in the political stability and military strategies of both Iran and Iraq. Low oil prices have contributed to policy disputes within the ruling Ba'th Party in Baghdad, and the low prices, compounded by Iraqi air attacks on Iranian economic targets, have contributed to increased strife among competing factions in Tehran. We do not believe that lower oil revenues will, by themselves, threaten the stability of either Iran or Iraq, but they will greatly contribute to popular dissatisfaction over the war and the regimes' management of it. We believe Iran and Iraq will concentrate on economic recovery after the fighting stops rather than renewing efforts to subvert the Gulf monarchies.

Iran's economy is in shambles, and the urban poor, in particular, suffered a precipitous decline in living standards in 1986. We believe that Iran must show progress in the war to justify the enormous human and economic cost to its populace. At the same time, reduced revenues hamper its ability to continue major ground offensives, let alone finance an arms buildup to threaten Iraq's superiority in advanced weapon systems.

Iraq, wearied by the war, was forced in 1986 to abandon the last traces of its "guns-and-butter" policy and to slash nonmilitary spending. The Iraqi people have endured reductions of consumer subsidies, tax increases, expanded rationing, and shortages of consumer items, including foodstuffs. They, like the Iranians, have held up reasonably well but can anticipate little improvement, even after Iraq opens a new oil pipeline through Turkey this summer.

that real GDP for all the Middle Eastern oil-exporting countries would fall by 25 percent this year and by another 15 percent in 1988. Export revenues would decline substantially, contributing to an aggregate reduction in spending of 23 percent this year and 11 percent next year, assuming past spending patterns. The states would be forced to implement additional severe cutbacks, and the economic problems of many of them would reach regime-threatening proportions.

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What if Oil Prices Increase?

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Our model indicates that the economic difficulties these countries face would lessen only moderately under the most optimistic—but also unlikely scenario-that oil prices stabilize at \$25 per barrel during the next two years. The lingering effects of austerity measures taken over the past few years would continue to hamper growth. Under this assumption, aggregate real GDP growth for these countries would increase by 5 percent this year and by 3 percent in 1988. The overall current account balance would improve from a deficit of \$26 billion in 1986 to a surplus of \$26 billion this year. The countries could avoid making extreme spending cuts, but, as in the \$18-per-barrel scenario, some of them would still not have sufficient resources to ease significantly their economic troubles. A continuation of the modest economic reforms undertaken, however, would allow some economic growth and forestall a major erosion of benefits needed to placate their local populations.³

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Implications for the United States

Although the United States is a major oil producer, it is also the world's largest oil importer, and, on balance, the decline in oil prices has helped the domestic US economy. We believe, however, the impact of continuing low oil prices on US relations with the region will be largely negative. US economic

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The United States: Economic Implications of Low Oil Prices

The United States has reaped significant economic benefits from low oil prices. Lower oil prices in 1986 saved the United States more than \$20 billion and contributed to the lowest level of inflation in 25 years. The domestic oil industry, however, fell into a severe depression. Exploration and development budgets of domestic oil companies were slashed, and high-cost oil wells were shut down. Oil production fell by 300,000 barrels per day (b/d) from 1985 levels. US energy experts predict that domestic production will decline an additional 400,000 b/d in 1987 if oil prices stay around \$18 per barrel.

With depressed domestic production, the United States once again faces a growing dependence on the Middle East, with its large oil reserves and excess oil-producing capacity. US imports of crude oil from these countries in 1986 were almost twice the average of the previous two years and accounted for 20 percent of US crude oil imports. The continued volatility of the region will in the foreseeable future pose a potential threat to the flow of oil. The Iran-Iraq war, a probable power struggle in post-Khomeini Iran, the Arab-Israeli conflict, political instability, and the US-Soviet competition for influence in the region could all affect access to Middle Eastern oil.

and strategic interests would be seriously damaged if political instability in the Middle East worsened significantly—an unlikely prospect at present—and led to curbed oil output and restricted Western access to oil, or caused the collapse of friendly regimes and installed a new crop of anti-Western leaders. Prolonged political turmoil in Egypt, for example, could produce an anti-US regime interested in abrogating the Camp David accords. A rise in fundamentalism espoused by alienated youth would encourage some states to move away from the United States and reject Western influence.

Some of the oil states will probably attempt to focus blame for their economic problems on the United States to shore up their political positions. Arab governments historically have paid a price in popularity for close relations with Washington because the United States is perceived to support Israel at the expense of Arab interests. As political pressure mounts, we believe these states will publicly dissociate themselves from policies closely identified with the United States to avoid criticism from neighbors and constituents. Opponents of regimes with pro-US policies are likely to blame the United States for austerity measures and some of the accompanying repression.

External threats, conversely, probably will encourage the oil states, except Libya and Iran, to quietly reinforce security ties to the United States, regardless of their economic circumstances and threats of domestic instability. The Gulf states, for example, already are looking to the United States for assurances of protection against a spillover of the Iran-Iraq war, even though they are likely to shun overt cooperation with the US military or a US military presence on their soil. Recent requests from Kuwait to the United States to provide protection for Kuwait tankers in the Gulf reinforces the US role as a guarantor of the sovereignty of these states.

We expect the harder pressed oil states to increase requests for US economic and financial aid, including softer loan terms and a rescheduling of official debts. These states will view US largess as a measure of Washington's commitment to their needs and as an indicator of US reliability as an ally. The North African countries, except Libya, will press Washington for generous economic and military assistance by playing on their existing close relationship with the United States (Egypt) or by emphasizing their importance for regional stability (Algeria and Tunisia).

Curbs on spending by the major oil exporters caused by lower oil revenues are likely to cut deeply into US exports of merchandise and, to a lesser extent, arms to 25X1 25X1

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the Middle East. US exports to the region in 1986 fell almost 16 percent, to \$8 billion. Much of this drop was in sales to Saudi Arabia, which dropped from \$4.4 billion in 1985 to \$3.4 billion last year. Nonetheless, we believe Washington will retain a large percentage of the Middle Eastern market. With oil prices denominated in dollars, the oil-exporting countries in the region will probably find the United States a more attractive supplier of needed imports than countries with stronger currencies.

Little Gain Seen for the Soviets

Moscow almost certainly will seek ways to exploit any weakening in ties between the United States and the oil states and is likely to benefit marginally from US setbacks in the Middle East. Still, Embassy reporting indicates Moscow has few resources in most of the region's oil-exporting countries to fully capitalize on US problems. Local Communist parties are illegal and, like other leftist groupings, weak. Moreover, growing Islamic fundamentalism opposes Communism and is wary of secular leftists. The gains that the Soviets make in the Middle East during the next two years are likely to result more from external political pressures faced by the states and their desire to project a nonaligned image than from their economic troubles.

Like the United States, the USSR's financial concerns, in part related to lower prices for its oil exports, will prompt it to be selective in the countries it targets for assistance. Moscow is likely to focus financial and military assistance where it perceives its interests are most threatened, such as in preventing an Iranian victory over Iraq, or where it believes minimal assistance would yield some influence. Nonetheless, Moscow will make financial sacrifices only in highly selective cases. We believe substantial Soviet concessions on Egypt's military debt in March were granted not only to strengthen ties to Cairo but also to undercut US influence.

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The Soviets probably will project an image of cooperation with OPEC, but their oil export policy will continue to be set to meet Moscow's economic needs and hard currency requirements. Last August, Soviet officials met with the Iranians and, after last December's OPEC meeting, with the Saudis. According to press reports, Soviet spokesmen indicated to representatives of both countries that they would consider a reduction in oil exports. Cuts in exports made earlier this year, however, resulted from fluctuations in Soviet oil production and domestic consumption rather than from Soviet support for OPEC. Still, the Soviets probably hope that contacts with the Middle Eastern oil producers and the common interest in higher oil prices will encourage Saudi Arabia, Bahrain, and Qatar to establish diplomatic relations with them as Oman and the UAE did in 1985.

The value of Soviet oil exports, Moscow's most important hard currency earner, declined by 50 percent from 1983 to roughly \$7 billion in 1986, and the value of Soviet arms deliveries to the Middle Eastern oil exporters declined from \$7.3 billion in 1982 to \$5.3 billion in 1986, measured in constant 1986 dollars.

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Appendix A

Econometric Methodology

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Econometric models have become conventional tools for analyzing and forecasting economic activity. In a system of equations, a model combines a theoretical representation of economic interactions, a statistical analysis of the key relationships, and assumptions about external events. The solution of the system of equations produces conditional estimates of the future and can be used to estimate an economic indicator's sensitivity to alternative sets of assumptions about future developments.

Three models were used in this project. The first is a model of the world oil market, which examines the linkages among oil demand, supply, and price. The second model relates the world oil price to the Middle Eastern oil producers' export revenues, import demand, government budget balances, and GDP. The third model determines the effect of changes in the values of key international currencies on the purchasing power of each barrel of oil.

Data for some of the countries in the model are difficult to obtain in a timely fashion and often contain anomalies. To correct this problem, each data series was compared among all of the modeled countries and was adjusted where obvious inaccuracies were present. Only aggregate values for the total group of countries were used, thus reducing the distorting effect of data problems in any particular country.

The World Oil Market

Our model of the world oil market equates the quantities demanded and supplied to determine the equilibrium market price. The demand function consists of an income effect and short-run and long-run price effects. The supply function is based on current projections of world energy supplies, adjusted for expected withholdings of oil, and on short-run and long-run price effects. The values for the elasticities in these equations are the generally accepted estimates that have been econometrically derived in energy studies during the past decade. The quantities supplied and demanded are then equalized in a marketclearing equation. To complete the model, a feedback

equation is included that relates world income negatively to increases in the price of oil in the short and long runs. 25X1 This model was used in two different ways for the purposes of this project. First, price paths were imposed on the model, forcing it to calculate the amount of oil that would have to be withheld from the market to achieve the given price. Second, expectations about world income and oil supplies were imposed to deter-

mine the expected price path under various scenarios.

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Macroeconomic Effects

The macroeconomic model of the Middle Eastern oilexporting countries relates the world price of oil to several key economic variables. Export revenue in dollars is modeled as a logarithmic function of the market price of oil. GDP in current dollars is assumed to be a function of current and past values of the price of oil, with a geometrically declining lag structure. Two behavioral equations are included in the model: the historic impact of changes in oil-export revenues on the demand for imports, working through foreign exchange constraints; and the impact of changes in oil exports on the level of government spending, through the government budget constraint as affected by the price of oil. Regression analysis of data from 1970 through 1985 was used to obtain the values of the elasticities. Identities are included in the model to calculate effects on the current account balance and the government budget balance.

The Purchasing Power of Oil

A simple spreadsheet model was constructed to estimate the impact of exchange-rate changes on the purchasing power of a barrel of oil priced in dollars. The current pattern of sources of import flows is used as a weighting system to determine the effect of a change in any particular currency's value on the oil exporters' purchasing power. The results are deflated by the price levels in the exporting countries to produce a real purchasing power series.

To calculate the real purchasing power of a barrel of Middle Eastern oil, the exchange rate for each trading partner is first adjusted for inflation. Next, changes in these real exchange rates are weighted by each country's share of sales to the Middle Eastern oil exporters. These values are then converted to a 1970 base and multiplied by the current dollar price of oil.

The methodology can be summarized as follows:

- Obtain dollar exchange rates of trade partners.
- Deflate exchange rates by domestic inflation rates.
- Convert real exchange rates to a 1970-based index.
- Weight deflated exchange rates by market share.
- Multiply this series by the dollar price of oil adjusted for dollar inflation.

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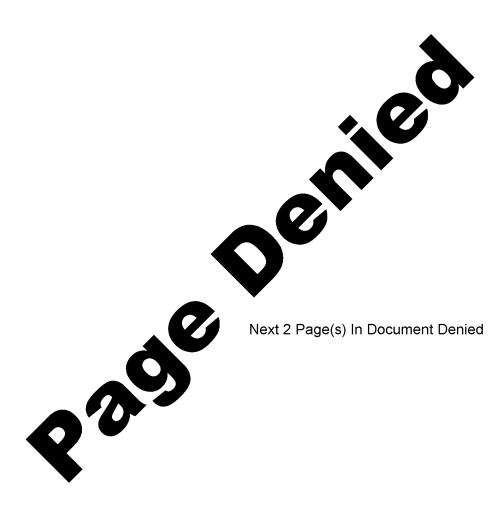
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